



# PUBLIC NOTICE

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## COMMISSION REITERATES THAT DOWNLOADABLE SECURITY TECHNOLOGY SATISFIES THE COMMISSION'S RULES ON SET-TOP BOXES AND NOTES BEYOND BROADBAND TECHNOLOGY'S DEVELOPMENT OF DOWNLOADABLE SECURITY SOLUTION

CS Docket No. 97-80

Section 76.1204(a)(1) of our rules states that, "[c]ommencing on July 1, 2007, no multichannel video programming distributor subject to this section shall place in service new navigation devices for sale, lease, or use that perform both conditional access and other functions in a single integrated device."<sup>1</sup> In paragraph 35 of the Commission's *Second Report and Order* on the Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, we stated that downloadable security technology would comply with our rules:

[T]he rule should be interpreted to require the physical separation of conditional access and other navigation functions only in the case of hardware-oriented conditional access solutions or other approaches that may preclude common reliance on the same security technology and conditional access interface. Downloadable security comports with the rule's ban on the inclusion of conditional access and other functions in a "single integrated device" because, by definition, the conditional access functionality of a device with downloadable security is not activated until it is downloaded to the box by the cable operator. To the extent a downloadable security or other similar solution provides for common reliance, as contemplated herein, we would consider the box to have a severable security component.<sup>2</sup>

The Commission takes notice that, as the attached letter explains, Beyond Broadband Technology, LLC (BBT) has already developed a downloadable security solution which provides for common reliance. BBT reports that its open standard, low-cost solution for separated security will be available in time to comply with our July 1, 2007 ban on integrated security devices. Specifically, BBT states that: "What BBT has done is design a downloadable conditional access security system in a low-

<sup>1</sup> 47 C.F.R. § 76.1204(a)(1).

<sup>2</sup> *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, Second Report and Order, 20 FCC Rcd. 6794 (2005).

cost set-top box that can be used today, for currently offered services and can also prove to be the first phase of an evolution toward competitively designed approaches responding to new and different needs. The fundamental challenge facing BBT was whether it could quickly finish development of a basic device and begin deployment of this new technology before the current deadline.” BBT goes on to state that it “ha[s] met the challenge. ... The BBT solution addresses this concern by offering ‘severable security’ based on a flexible, cost-efficient, and ‘open standard’ downloadable conditional access system.” Finally, we note that, “consistent with the Commission’s goal of ‘common reliance,’ BBT is offering its technology on an ‘open standard’ basis ... to all CE and set-top box manufacturers.”

For further information, contact Andrew Long (202) 418-1043. Press inquiries should be directed to Clyde Ensslin (202) 418-0506.

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**BBT**  
B E Y O N D  
B R O A D B A N D  
T E C H N O L O G Y

12/21/06  
Hand Delivered

Chairman Kevin J. Martin  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

Dear Chairman Martin:

On behalf of Beyond Broadband Technology, LLC (BBT), we are pleased to inform you of a major new development in the ongoing efforts by the cable television industry to develop low-cost cable set-top boxes with true "downloadable security".

BBT was formed a little more than a year ago following 3 ½ years of quiet research and development by three independent cable television operators seeking a solution to the need for low-cost set-top boxes. BBT is just completing the filing of preliminary patent applications for a new cable television converter design. The new design will allow operators to quickly and inexpensively migrate from analog to digital transmission, including high definition, thus maximizing bandwidth utilization and assuring their ability to compete with both DBS and other technologies. It will also aid the Commission's goals of completing the digital transition and expanding broadband Internet availability.

As part of the new design, the BBT solution to the low-cost set-top box challenge includes a unique highly secure downloadable conditional access system that is capable of being used on both one-way and two-way cable systems. The shared-key encryption design, initiated either manually for one-way systems or electronically for two-way systems, uses well established and proven encryption algorithms that at minimum triple the level of currently used cable security standards.

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Details regarding the initial production designs are still being finalized. The first one-way low-cost BBT "boxes" are not actually designed as "set-top" devices, but appear similar to the "brick" transformers used on the power cords of many portable computers, and will be either wall or set mounted out of view. They will be in prototype testing in the first quarter of 2007, and manufactured product, in quantity, is scheduled for the third quarter. Associated headend equipment costing less than one-quarter current equipment prices has already been tested and is ready to go into production immediately.

The significance of this new technology should be clear. It can provide a viable low-cost substitute for expensive CableCARD devices to achieve non-integrated security. Any truly downloadable conditional access system can be accommodated by the BBT approach. Moreover, consistent with the Commission's goal of "common reliance," BBT is offering its technology on an "open standard" basis (similar to DOCSIS modems) to all CE and set-top box manufacturers.

As the Commission has recognized, downloadable security offers significant advantages – including cost savings and increased flexibility – over approaches that rely on complete physical separation of navigation and security functionality such as the CableCARD. The BBT solution provides precisely these advantages, thereby minimizing the risk that operators will have to make investments in older technology– investments that could foreclose those operators from spending that capital on advanced technology needed to remain competitive in the future. In short, the BBT solution addresses a dire and immediate need, particularly for independent cable systems, for affordable equipment that is capable of delivering services critical to the digital transition, such as high definition television. It also addresses, in a positive, pro-competitive way, the Commission's goal of non-integrated security and its desire to promote the digital transition.

The Commission previously has been briefed on other forms of downloadable security being developed by the industry. Those other approaches may indeed provide their own specific benefits, particularly in connection with satisfying the demands of some content suppliers with respect to yet-to-be-developed advanced services. What BBT has done is design a downloadable conditional access security system in a low-cost set-top box that can be used today, for currently offered services and can also

prove to be the first phase of an evolution toward competitively designed approaches responding to new and different needs.

The fundamental challenge facing BBT was whether it could quickly finish development of a basic device and begin deployment of this new technology before the current deadline for severable security forced cable operators to make financial commitments that would derail the entire effort. Absent the BBT alternative, the required purchase of CableCARD technology would have forced many cable systems, particularly the smaller ones, to fail, sell, or consolidate because they cannot comply with the Commission's current mandates. There simply is no cost efficient equipment currently available on the market for them to do so.

We are pleased to inform you that we have met the challenge. The Commission has stated that the concern that prompted the non-integrated security rule in the first place was that the commercial availability of navigation equipment may be impeded by the provision of bundled boxes. The BBT solution addresses this concern by offering "severable security" based on a flexible, cost-efficient, and "open standard" downloadable conditional access system.

Should you want further information, please feel free to contact us.



Ben Hooks



Bill Bauer



Tony Swain

cc: Commissioner Copps  
Commissioner Adelstein  
Commissioner Tate  
Commissioner McDowell  
Donna Gregg